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A NEW DEER FROM COSTA RICA.\*

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In the original description of his *Cariacus clavatus*,† the *Odocoileus truei* of Merriam, from the Segovia River‡, eastern Honduras, Dr. F. W. True recorded seven Costa Rican deer in the National Museum collection, which though of unusually large size, he regarded as not separable from the Honduras animal. The differences between the deer of the two regions are so constant, however, that it now seems preferable to recognize the Costa Rican form as distinct. It may be known as:

***Odocoileus costaricensis* sp. nov.**

*Type*.—Young adult male (skin and skull) No.  $\frac{113885}{130339}$  United States National Museum.§ Collected in Talamanca, on the eastern side of Costa Rica, between the coast and the foot of the Cordilleras, by José C. Zeledon, during the latter part of 1872 or early in 1873.

*Characters*.—Considerably larger than *Odocoileus truei* Merriam, and general color lighter and more grizzled, particularly on sides of body. Skull and teeth uniformly larger and more robust than in the Honduras animal. Antlers heavier and more rugose.

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†Proc. U. S. Nat. Mus., XI, pp. 417-424. 1888.

‡Mr. Chas. H. Townsend who collected the original specimens informs me that they were taken in the open pine lands about 50 miles above the mouth of the river.

§Permanent dentition in place, but teeth practically unworn.

*Color.*—Dorsal surface a uniform, fine, but distinct grizzle of drab, black and buff, the individual hairs colored as follows: from base to slightly beyond middle drab, then after a rather abrupt transition, black to tip, the black area interrupted by a sharply defined band of light buff about 2 mm. in width. The buff is the predominating element of the grizzle except on crown, forehead, nape and middle of anterior portion of back, where black is in excess, without, however, forming any defined dark markings. Sides like back but the buff area on each hair is increased at the expense of the black. The resulting color is somewhat paler and coarser grizzle. Underparts mostly wood-brown, lighter on the neck, darker on the belly. Region between hind legs, and an ill-defined median line running forward to chest, dull white. The white reappears faintly on inner side of both front and hind legs, but is irregular and ill-defined, and scarcely extends downward to hock. Elsewhere the legs are wood-brown, faintly darker on outer side. Tail entirely white beneath, cinnamon above, dusky at tip. Ears grayish externally, whitish internally. Cheeks light wood-brown. Muzzle dusky. A faintly defined pallid area on throat between jaws. Hoofs black, edged with horn color.

A second specimen is in very bleached, abraded coat. General color light buff, but speckling of back and sides still evident notwithstanding the imperfect condition of the hairs. Front legs much paler than in the type, but color of hind legs not sensibly altered.

*Skull.*—Skull distinctly larger than that of *Odocoileus truei* but not otherwise tangibly different. In size and form it closely agrees with that of the externally quite dissimilar *Odocoileus thomasi* Merriam from Chiapas. The basal length in the type of the latter is 230 mm., in a second specimen 220. In *O. costaricensis* the basal length ranges from 235 to 250, and in *O. truei* from 200 to 220.\*

*Teeth.*—The maxillary teeth are broader than in *Odocoileus truei*, though the toothrow is not increased in length. The increase in width is especially noticeable in the middle permanent premolar. Mandibular molars practically identical with those of the smaller animal, but premolars, particularly the first, much larger.

*Antlers.*—The antlers though similar in general form to those of the other members of the group are more robust and more coarsely rugose than in any of the allied species. A rudimentary prong is occasionally developed on inner face near middle. Beyond this region the surface of the anther is smooth.

*Measurements.*—External measurements of type (from well made skin): total length, 1400; tail vertebrae, 120; hind foot, 375; greatest diameter of hoof, 50; ear from crown, 110.

Cranial measurements of type: greatest length, 250 (264);† basal

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\*The skull of *Odocoileus nelsoni* Merriam, also from Chiapas, is probably of about the same size as that of *O. truei*. In the type (an immature male) the basal length of skull is 197.

†Measurements in parenthesis are those of the largest Costa Rican skull.

length, 237 (250); basilar length, 229 (235); median palatal length, 155 (165); palatal width between anterior molars, 38 (46); least interorbital width, 57 (64); greatest width between lower rims of orbits, 101 (112); zygomatic breadth, 94.6 (108); mastoid breadth, 74 (86); occipital depth, 58 (57); mandible, 190 (195); upper toothrow (alveoli), 68 (68); † lower toothrow (alveoli), 79 (82); length of the three lower premolars together (alveoli), 31 (33).

*Specimens examined.*—Two skins and four extra skulls, all from Costa Rica.

*Remarks.*—In addition to its larger size this species differs from *Odocoileus truei* in the distinctly speckled back and sides. In the smaller animal the light subterminal bands on the back are broader and less strongly contrasted with the dark tips, while on the sides this element of the marking is so extended as to cover practically all of the visible part of the hair. As a result the sides are uniformly colored, without trace of grizzle. This condition is repeated in *Odocoileus thomasi*, the only species equalling *O. costaricensis* in size.

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†Type of *O. truei*: upper toothrow (alveoli), 66; lower toothrow (alveoli), 73; length of the three lower premolars together (alveoli), 28. In the type of *O. thomasi* the corresponding measurements are 70, 80 and 32.